#### IN THE UNITED STATES PATENT AND TRADEMARK EXAMINER

Applicant: John S. Brown, et al.

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Examiner:

Michael A. Cuff

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3627

Title: **METHOD AND APPARATUS** 

FOR TRACKING FIXED ASSETS

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Attention: Board of Patent Appeals and Interferences

## **APPELLANTS' BRIEF**

This brief is in furtherance of the Notice of Appeal filed in this case on March 31, 2008.

#### 1. REQUIRED FEE

The requisite fee set forth in §1.17(f) is submitted herewith.

#### 2. **REAL PARTY IN INTEREST**

The present application is assigned to International Business Machines Corporation. Accordingly, International Business Machines Corporation is the real party in interest.

## 3. RELATED APPEALS AND INTERFERENCES

The appellants, assignee and the legal representatives of both are unaware of any other appeal or interference which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

## 4. STATUS OF CLAIMS

- a. Claims canceled: None
- b. Claims withdrawn from consideration, but not canceled: None
- c. Claims pending: 1-21
- d. Claims allowed: None
- e. Claims rejected: 21

Appealed claims 1-21 as currently pending are attached as Appendix A hereto.

## 5. STATUS OF AMENDMENTS

There are no un-entered amendments in this application.

## 6. <u>SUMMARY OF THE INVENTION</u>

The present invention is a method and apparatus for determining the tax location of a capitalized fixed asset. In particular, when a transaction concerning a particular asset is recorded, the transaction record is provided to the inventive

tax location finder module. The tax location finder module runs through a hierarchical sequence of queries of the information assigned to the asset. In each query, the tax location finder module checks to determine if the data assigned to the asset meets a set of criteria that helps indicate a particular routine (or audit) that will probably be able to derive the tax location of the asset. Such criteria typically might comprise conditions that indicate the type of the asset (e.g., manufacturing equipment/real estate/furniture), the nature of the assets use (e.g., internal/customer-site/loaner/vendor-site), and/or the building, employee, or cost center to which the asset is assigned.

If the data associated with the asset meets the set of criteria for a particular audit, then that audit routine will be called. If the asset does not meet the query criteria for an audit, then it will continue on to the next sequential query until it encounters a query whose criteria it meets. When the asset meets the set of criteria for a particular audit, that audit is called. Each audit is customized to the asset or transaction qualities that caused it to meet the criteria for calling that audit so that the logic in that routine will likely be able to derive a location for that asset.

The called audit checks through the data in the transaction record and/or tables or databases to attempt to derive the location of the asset. If the audit routine discovers sufficient data to derive a tax jurisdiction code, then the derived tax jurisdiction code is passed back. If the audit could not successfully derive a tax location, the transaction record is sent to an error correction facility where it may be manually researched and corrected.

One or more of the audit routines may be designed to return the record transaction back into the hierarchy of queries if the audit fails for certain reasons.

Below is a table mapping the independent claims to the corresponding support found in the specification and drawings.

Claim No.	Claim language	Support in Specification found at	
1	A method of tracking the location of capitalized fixed assets for tax and/or insurance reporting purposes, said method comprising the steps of:	Page 4, lines 10-12	
	(1) detecting when a capitalized fixed asset is involved in a transaction;	Page 4, lines 15-20 and Fig. 1, 112, 114	
	(2) responsive to such a detection in step (1), running data for said asset through a plurality of queries, each query designed to determine if said asset meets a set of criteria indicative of a category of how a location of said asset for tax and/or insurance reporting purposes may be determined;	Page 4, lines 20-21 and Fig. 1, 120- 170	
	(3) if, in step (2), said asset meets said set of criteria corresponding to one of said queries, running data corresponding to said asset through an audit customized to said corresponding category to determine a location of said asset for tax and/or insurance reporting purposes;	Page 5, lines 1-15 and Fig. 1, 120- 170	
	(4) if, in step (3), a location is determined, assigning said determined location to said asset for tax and/or insurance reporting purposes;	Page 6, lines 1-4 and Fig. 1, 180	
	(5) if, in step (3), a location for tax and/or insurance reporting purposes is not determined issuing an error notification; and	Page 6, lines 6-104 and Fig. 1, 185	
·	(6) if, in step (2), if said data for said asset does not meet said criteria of any of queries, issuing an error notification.	Page 18, lines 10-13 and Fig. 1, 185	

8	A computer readable product embodied on computer readable media readable by a computing device for tracking the location of capitalized fixed assets for tax and/or insurance reporting purposes, said product comprising computer executable instructions for:	Page 4, lines 10-12
	(1) interfacing with external software to become aware of when a capitalized fixed asset is involved in a transaction;	Page 4, lines 10-12 and Fig. 1, 112, 114
	(2) responsive to such a detection in step (1), accessing data for said asset and running said data through a plurality of queries, each query designed to determine if said asset meets a set of criteria indicative of a category of how a location of said asset for tax and/or insurance reporting purposes may be determined;	Page 4, lines 20-21 and Fig. 1, 120- 170
	(3) if, in step (2), said asset meets said set of criteria corresponding to one of said queries, running data corresponding to said asset through an audit customized to said corresponding category to determine a location of said asset for tax and/or insurance reporting purposes;	Page 5, lines 1-15 and Fig. 1, 120- 170
	(4) if, in step (3) a location is determined, assigning said determined location to said asset for tax and/or insurance reporting purposes;	Page 6, lines 1-4 and Fig. 1, 180
	(5) if, in step (3), a location is not determined issuing an error notification; and	Page 6, lines 6-10 and Fig. 1, 185
	(6) if, in step (2), if said data for said asset does not meet said	Page 18, lines 10-13 and Fig. 1, 185

	criteria of any of queries, issuing an error notification.	
19	A computer system having at least one memory for storing data and at least one central processing unit for executing instructions, said memory storing at least one database containing data about a plurality of capitalized fixed assets, said central processing unit adapted to track the location of capitalized fixed assets for tax and/or insurance reporting purposes, said computer system comprising means for recording transactions relating to capitalized fixed assets, said	Page 4, lines 10-12 and original claim 19
	system further comprising: means for interfacing with external software to become aware of when a capitalized fixed asset is involved in a transaction;	Page 4, lines 10-12 and Fig. 1, 112, 114
	means responsive to said detection for accessing data for said asset and running said data through a plurality of queries, each query designed to determine if said asset meets a set of criteria indicative of a category of how a location of said asset for tax and/or insurance reporting purposes may be determined;	Page 4, lines 20-21 and Fig. 1, 120- 170
	means for running data corresponding to said asset through an audit customized to said corresponding category to determine a location of said asset_for tax and/or insurance reporting purposes, if said asset meets said set of criteria corresponding to one of said	Page 5, lines 1-15 and Fig. 1, 120- 170

queries;	
means for assigning said determined location to said asset for tax and/or insurance reporting purposes and transmitting said determined location to said controller software, if a location is determined;	Page 6, lines 1-4 and Fig. 1, 180
means for issuing an error notification, if a location is not determined; and	Page 6, lines 6-10 and Fig. 1, 185
means for issuing an error notification an asset type is not determined for said asset.	Page 18, lines 10-13 and Fig. 1, 185

## 7. GROUNDS FOR REJECTION TO BE REVIEWED ON APPEAL

Claims 1-21 stand rejected as unpatentable under 35 U.S.C. 103(a) over U.S. Published Patent Application No. 2003/0195780 to Arora et al (hereinafter Arora) in view of U.S. Patent No. 6,513,019 to Lewis (hereinafter Lewis).

## 8. <u>ARGUMENT</u>

## I. The Rejection is Improper Because the Arora Publication Is Not Prior Art

Arora is not prior art to the present application under any section of the patent statute. Particularly, the present application has a filing date of March 1, 2002. Arora has an effective filing date of December 13, 2002. Arora does, however, claim priority to provisional application No. 60/341,129 filed on December 13, 2001.

From the dates given above, the filing date of Arora is after the filing date of the present application. Therefore, it cannot constitute prior art per se. However, if the provisional application to which it claims priority contained the same subject matter of Arora upon which the Office is relying, then Arora could conceivably constitute prior art under 35 U.S.C. 102 (e).

That is not the case. Applicant has reviewed the provisional application, which is available through the Public PAIR portal of the USPTO website, and has found that it does not contain the disclosure upon which the Office is relying in Arora 2003/0195780.

Particularly, the Office relies on paragraphs 48 and 51 of Arora, which discuss Figure 2 of Arora.

However, review of that provisional application, a copy of which is attached hereto in the Evidence Appendix, will show that the figure discussed in paragraphs 48 and 51 of the Arora published application, Figure 2, does not even appear in the provisional application. Furthermore, neither do paragraphs 48 and 51 (or anything reasonably similar).

In the Response to Arguments section of the Final Office Action, the Examiner implicitly conceded that the Arora publication was not prior art, but argued that paragraphs 1-20 of the Arora provisional application, while not being a verbatim copy of the allegedly relevant parts of the Arora publication, supported the rejection.

Applicant has reviewed paragraphs 1-20 of Arora and respectfully traverses the Examiner's argument that they support the rejection or even that they contain vaguely similar disclosure to the portions of Arora that the Examiner relies upon in the rejection. Furthermore, Applicant respectfully objects to the Examiner's continued citation of portions of the non-prior art Arora publication followed by vague assertions that the Arora provisional application discloses similar subject matter, rather than citing from the Arora provisional application itself. This practice makes it quite difficult for Applicant to address the rejection concisely and directly, since Applicant must (1) first review the cited portions of the Arora publication, then (2) figure out what the Examiner believes it to teach, then (3) review the Arora provisional application to determine whether it teaches the same subject matter, and, only then, (4) address whether the Examiner has correctly understood the Arora publication, (5) correctly determined that the Arora

provisional application contains the same teachings, and (6) determine if the claims read on such teachings.

Citing a reference that the Examiner concedes is not prior art and asserting that it is similar to the teachings of a reference that the Examiner contends is prior art is not a reasonable practice. It does not properly inform Applicant of the grounds for the rejection in a way to which the Applicant can reasonably be expected to reply.

The Examiner should issue a new non-final Action referring to the provisional application rather than Arora.

#### II. The Arora Publication Does Not Teach That For Which It Has Been Cited

Turning to the substance of the rejection, the Examiner continues to rely on paragraphs 48 and 51 of Arora, which the Examiner asserts are, in turn, supported by paragraphs 1-20 of the Arora provisional application.

## A. The Arora Publication

Arora discloses a very different system from the present invention that does not meet the claim recitations that the Examiner asserts. Ignoring for the moment the issue of whether the Arora provisional application contains the same subject matter that the Examiner is relying on from the non-prior art Arora publication, the Arora publication discloses a system by which one can evaluate the business implications of the various ways a particular business transaction can be structured, including the tax implications. The example from Arora that the Examiner particularly relies upon describes a situation in which a company with subsidiaries in California and Nevada can incur costs due to shared operations. The costs can be allocated, in varying degree, to either the California or Nevada subsidiary. In deciding how much cost to allocate a manager might realize tax advantages in California. However, another concern is that Nevada operational managers will have little incentive to conserve on costs if a large portion of the costs are being assigned to the California subsidiary. Arora's

system can analyze data about the potential transaction and conduct essentially a cost/benefit analysis to help the business entity decide the best way to allocate the costs of the transaction.

## B. Comparison of the Present Invention to the Arora Publication

All of the independent claims, claims 1, 8 and 19, of the present application recite relatively similar subject matter. Accordingly, Applicant with use claim 1 in the following discussion as an exemplary independent claim.

The Examiner is attempting to fit a square peg in a round hole by analogizing Arora to the present invention. The present invention is a method and apparatus for attempting to determine the location of an asset for purposes of tax and/or insurance reporting. Arora, on the other hand, is directed to what is essentially the inverse process of optimizing a potential, future business transaction by running a cost/benefit analysis of many factors, including tax implications, so that a business entity can determine the best way to structure a business transaction. It is essentially the Examiner's position that Arora's system can be used by a business entity to determine, among other things, where it might want to locate a physical asset for tax purposes based on a weighted cost/benefit analysis. This is essentially the inverse of reviewing the actual data for an asset to determine the actual tax location of the asset.

Based on the above, it should be clear that the present invention and Arora pertains to very different subjects. However, of course, the issue is whether the claim language is sufficiently specific to distinguish over the very different Arora reference.

Applicant respectfully traverses insofar as the language of the independent claims clearly distinguishes over the prior art of record. Particularly, there are at least two flaws in the Examiner's analysis. First, even if one were to accept the Examiner's improper interpretation of Arora, the independent claim language simply cannot be rationally read on it. Second, the Examiner's position essentially is based on what it believes Arora can be used to do, rather than

anything that is expressly disclosed in Arora. However, a rejection cannot be based on what Arora might be used to do, but must be based on what Arora actually discloses.

Turning to the first issue, there are many flaws and inconsistencies in the Examiner's analysis. First, the Examiner asserts that step (1) of claim 1, i.e., "detecting when a capitalized fixed asset is involved in a transaction" reads on the fact that Arora's economic database 250 includes fixed assets to be included in the "what if/optimization scenario". The Examiner considers the what if/optimization scenario to be the "transaction". This is an untenable position.

Particularly, even accepting for the sake of argument the Examiner's position that Arora's technique itself is the transaction, then Arora's what if/optimization transaction still would not comprise <u>detecting</u> a transaction. It would comprise <u>initiating</u> a transaction. As a simple example of the unreasonable nature of the Examiner's semantics, let us consider the transaction being a leaf falling from a tree. No one would rationally argue that the leaf falling from the tree is the same thing as detecting the leaf falling from the tree. Yet this is essentially the Examiner's position with respect to step (1) of claim 1. In essence, it is the Examiner's position that doing something is the same thing as detecting something being done.

Second, the what if/optimization routine of Arora is not a "transaction" in any reasonable sense of the word. The what if/optimization routine is what the Examiner contends is the overall claimed process. Thus, it is the Examiner's interpretation that the overall process claimed in claim 1 is itself the "transaction" referred to in the first step of claim 1. This is not a reasonable interpretation of a claim, particularly one that recites detecting a transaction. In the Examiner's interpretation, the process detects itself (constituting the first step of the claim). This is an inherently absurd interpretation contrary to reason and all basic rules of claim interpretation.

Step (1) of claim 1 is not necessarily a simple step that can be disposed of by hand waving. For instance, as discussed in the specification at page 7, lines

13-17, the tax location finder software module may be called by one or more other software modules that record transactions relating to capital assets whenever the other software module(s) is invoked in connection with a transaction pertaining to a capital asset.

Turning to step (2) of claim 1, which recites "responsive to such detection in step (1), running data for said asset through a plurality of queries, each query designed to determine if said asset meets a criteria indicative of a category of how a location of said asset for tax and/or insurance reporting purposes may be determined". It is the Examiner's position that the certain data required by Arora qualifies as a "query".

Again, this is an untenable position. Essentially, the Examiner is saying that the data itself constitutes a query. This begs the question; If Arora's data is the query in step (2), then what in Arora is the <u>data</u> that is recited in step (2)? Particularly, step (2) recites "running <u>data</u> for said asset through a plurality of <u>queries</u>". Again, using a very simple example, the data might be the fact that the leaf is yellow. The query might be "Is the leaf red?" The data (yellow) and the query (is the leaf red?) clearly are not the same thing.

Furthermore and in any event, even further accepting for the sake of argument that the data itself is the query, the Examiner's position still is untenable. Step (2) of claim 1 recites that the <u>query category</u> is a category of "how a location of that asset may be determined". However, the Examiner's example of how the language of step (2) of claim 1 reads on Arora is that the jurisdiction tax laws in regulatory database 248 include the claimed "criteria" as to what is taxable and, therefore, the jurisdiction is the claimed "location" and the type of asset taxable is the claimed "category". Thus, the Examiner asserts that the "category" is the type of asset taxable. However, the type of asset taxable in a particular jurisdiction contains absolutely no information whatsoever as to how a location of the asset may be determined, which is what the claim requires the query to be.

Let us consider another simple example. The state of Nevada does not tax assets of the type "clothing". Thus, substituting exemplary data into the Examiner's example, the category (i.e., the type of asset taxable) is clothing; the jurisdiction is Nevada and the query/data is a pair of black pants. Thus, according to the claim, the pair of black pants (query/data) must be "designed to determine if said asset meets a set of jurisdiction tax laws (criteria) indicative of the type of asset taxable (category) of how a location of said asset... may be determined".

Thus, reading the claim with the exemplary substitutions in accordance with the Examiner's interpretation of the claim language results in utter nonsense, let alone anything that concerns the location of an asset. The flaw in the Examiner's reasoning should be apparent. First, the data/query, (a pair of black pants) provides no information as to whether the asset meets a set of criteria indicative of the category of how a location of said asset may be determined.

Turning to step (3) of claim 1, it recites "if, in step (2), said asset meets said criteria corresponding to one of said queries, running data corresponding to said asset for an audit customized to said corresponding category to determine the location of said asset for tax and/or insurance reporting purposes". The Examiner asserts that this reads on "if a fixed asset has an applicable tax law, it meets the criteria and the applicable tax calculation is the "audit".

Again there are many flaws in the Examiner's analysis. First, the Examiner is asserting that the applicable tax calculation is the audit. However, step (3) does not recite that the audit determines the tax on the asset. Rather, it recites that the audit determines the location of the asset. Thus, using another very simple example, determining that the pair of black pants has a tax calculation of \$0 in Nevada does not disclose whether those pants are in Nevada or California.

This, of course, should not be a surprise because Arora has nothing to do with determining the location of the pair of pants. It is the Examiner's position

that Arora may help the business entity determine where it might want to locate the asset. However, for all intents and purposes, where a business entity wants to place an asset is essentially irrelevant to the present invention.

In very simple terms, the Examiner is comparing apples to oranges. Arora discloses a system for helping a business entity determine where it might want to locate an asset for tax purposes. The present invention does almost the exact inverse of this, i.e., after a transaction, it determines the tax location of the asset.

In the Advisory Action issued in this case, responsive to this argument, the Examiner asserted that Applicant's argument that Arora performs an inverse process to the one claimed is an admission that the steps in the prior art and present invention are the same and asserted that "the claim language is too broad to distinguish such chronological differences that are being argued".

This is an untenable position for at least two reasons. First, Applicant was merely pointing out that the overall processes are essentially inverses of each other, not that each step is present in Arora but merely performed in inverse order. The fact that the Examiner could make such an assertion after reading Applicant's Response, which argued how each and every step of claim 1 is not found in Arora, is exemplary of the Examiner's practice of not viewing the evidence objectively, but taking small pieces of evidence out of context (be it Arora or Applicant's arguments), twisting them into something that no reasonable person of skill in the related arts would recognize, and the combining them piecemeal using hindsight reconstruction to formulate a rejection based on evidence that is barely relevant to the claimed invention.

Furthermore, contrary to the Examiner's assertions, the claims actually do expressly recite a chronology. For instance, claim 1 actually expressly recites:

that step (2) is responsive to an event occurring in step (1);

that step (3) is responsive to an event occurring in step (2)

that step (4) is responsive to an event occurring in step (3);

that step (5) is responsive to an event occurring in step (3); and

that step (6) is responsive to an event occurring in step (2).

Thus, according to the claim language, step (1) must occur before step, (2), step (2) must occur before step (3), step (3) must occur before steps (4) and (5), and step (2) must occur before step (6).

Thus, the claim is actually unusually chronological. At a minimum, step (1) must occur before every other step in the claim. Thus, the Examiner's primary point in this argument, i.e., that the claim does not recite that the transaction must occur and be detected first (as opposed to Arora, where the transaction occurs after the process) is, in fact, completely false. The claim does actually expressly require that the transaction occur and be detected first.

With respect to step (4) of claim 1, it recites "if, in step (3), a location is determined, assigning said determined location to said asset for tax and/or insurance reporting purposes". The Examiner asserts that step (4) reads on the decision of the business entity that is performing the "what if/optimization" process as to how it will assign the asset on their tax forms. While Applicant disagrees with this reading of the claim for all the reasons stated above in connection with steps (1) through (3) of claim 1, Applicant particularly objects to this with respect to independent apparatus claim 8, which is a computer readable medium claim. According to the Examiner's own description of Arora, this step is not executed by a computer. Accordingly, this step does not read on Arora, particularly with respect to independent claim 8.

With respect steps (5) and (6) of claim 1, they recite that an error notification is issued if a location is not determined in step (3) or if the data for the asset does not meet the criteria of any of the queries in step (2).

The Examiner concedes that Arora is silent with respect to error notification, but asserts that Lewis teaches a financial consolidation and communication platform in which the validation process teaches creating an error message in response to missing data in order that the situation is addressed by the appropriate staff. The Examiner asserts that it would have been obvious to modify Arora to incorporate an error notification when data was missing or not matching in order that the situation is addressed by the appropriate staff.

This proposed combination is improper for at least two reasons. First, the Examiner asserts that Lewis teaches creating an error message <u>in response to missing data</u>, and contends that it would be obvious to use the error notification of Lewis in Arora <u>in response to data that is missing or not matching</u>. However, steps (5) and (6) do not recite issuing an error notification due to either missing data or non-matching data. Rather, steps (5) and (6) recite issuing an error notification if a location cannot be determined or a query cannot be identified. These are totally different criteria for issuing an error notification than the ones taught in Lewis. Accordingly, Lewis does not teach steps (5) and (6) of claim 1.

Furthermore and in any event, even if it did, the proposed combination is improper because the proposed combination makes no sense. Particularly, it would not make any sense to add the error notification as recited in steps (5) and (6) of claim 1 to Arora because there can be no errors in Arora. As noted above, Arora does not pertain to discovering the tax location of an asset. Rather, it pertains to determining information that would be helpful in deciding where to locate an asset. Thus, in the context of Arora, there are no errors that would require an error notification; only different transaction scenarios, each with a different set of pros and cons.

Another simple example, particularly, the one described in paragraph 4 of Arora itself is instructive. In this scenario, Arora determines the pros and cons of allocating the cost of shared operations between California and Nevada subsidiaries to help it determine how to allocate those costs. The output of Arora of various scenarios is essentially a cost-benefit analysis. Thus, for instance, the business entity may decide to split the costs 60-40 or 50-50, or assign all the costs to Nevada, or assign all the costs to California. There is no error to be detected, just a decision to be made based on the data.

Hence, claim 1 clearly patentably distinguishes over Arora.

Independent claim 8 is a computer readable medium claim containing essentially the same recitations discussed above in connection with claim 1 as well as the additional limitation that they are performed by a computer readable

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medium. Thus, independent claim 8 patentably distinguishes over Arora and Lewis for at least all of the same reasons as claim 1. Additionally, claim 8 even further distinguishes over the proposed combination because, as noted above, some of the steps that the Examiner is relying on in Arora are not performed by a computer readable medium.

Independent claim 19 is a computer system and means plus function claim containing essentially the same limitations discussed above in claims 1 and 8. Therefore, it also distinguishes over the prior art of record for least all of the same reasons discussed above in connection with claims 1 and 8.

All other claims depend either directly or indirectly from one of independent claims 1, 8, and 19. Therefore, they also patentably distinguish over prior art of record for least all of the reasons set forth above in connection with the independent claims from which they depend.

## Conclusion

In view of the foregoing, Applicant respectfully requests that the Board reverse the rejection of claims 1-21.

Respectfully submitted,

June 2, 2008

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### APPENDIX A: CLAIMS INVOLVED IN THIS APPEAL

- 1. A method of tracking the location of capitalized fixed assets for tax and/or insurance reporting purposes, said method comprising the steps of:
  - (1) detecting when a capitalized fixed asset is involved in a transaction;
- (2) responsive to such a detection in step (1), running data for said asset through a plurality of queries, each query designed to determine if said asset meets a set of criteria indicative of a category of how a location of said asset for tax and/or insurance reporting purposes may be determined;
- (3) if, in step (2), said asset meets said set of criteria corresponding to one of said queries, running data corresponding to said asset through an audit customized to said corresponding category to determine a location of said asset for tax and/or insurance reporting purposes;
- (4) if, in step (3), a location is determined, assigning said determined location to said asset for tax and/or insurance reporting purposes;
- (5) if, in step (3), a location for tax and/or insurance reporting purposes is not determined issuing an error notification; and
- (6) if, in step (2), if said data for said asset does not meet said criteria of any of queries, issuing an error notification.
- 2. The method of claim 1 wherein, in step (2), each of said sets of criteria comprises at least one criterion to which said data for said asset must match.
- 3. The method of claim 2 wherein, in step (2), said data for said asset is run through said plurality of queries hierarchically, wherein, when said asset meets said set of criteria of a particular query, said asset data is not run through any queries ordered lower in said hierarchy.
- 4. The method of claim 3 wherein said transaction comprises a transfer or capitalization.

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5. The method of claim 3 wherein said error notification issued in step (5) indicates that the asset met said set of criteria corresponding to one of said categories, but was not assigned a location for tax and/or insurance reporting purposes.

- 6. The method of claim 5 wherein said error notification issued in step (5) further indicates which of said at least one criterion caused said error.
- 7. The method of claim 5 wherein said error notification issued in step (6) indicates that said asset data did not meet said criteria corresponding to any category.
- 8. A computer readable product embodied on computer readable media readable by a computing device for tracking the location of capitalized fixed assets for tax and/or insurance reporting purposes, said product comprising computer executable instructions for:
- (1) interfacing with external software to become aware of when a capitalized fixed asset is involved in a transaction;
- (2) responsive to such a detection in step (1), accessing data for said asset and running said data through a plurality of queries, each query designed to determine if said asset meets a set of criteria indicative of a category of how a location of said asset for tax and/or insurance reporting purposes may be determined;
- (3) if, in step (2), said asset meets said set of criteria corresponding to one of said queries, running data corresponding to said asset through an audit customized to said corresponding category to determine a location of said asset for tax and/or insurance reporting purposes;
- (4) if, in step (3) a location is determined, assigning said determined location to said asset for tax and/or insurance reporting purposes;

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- (5) if, in step (3), a location is not determined issuing an error notification; and
- (6) if, in step (2), if said data for said asset does not meet said criteria of any of queries, issuing an error notification.
- 9. The computer readable product of claim 8 wherein instruction (4) further comprises instructions for transmitting said determined location for tax and/or insurance reporting purposes to said external software.
- 10. The computer readable product of claim 8 wherein, in instruction (2), each of said queries comprises at least one criterion to which said data for said asset must match.
- 11. The computer readable product of claim 10 wherein, in instruction (2), said data for said asset is run through said plurality of queries hierarchically, wherein, when said asset meets set of criteria of a particular query, said asset data is not run through any queries ordered lower in said hierarchy.
- 12. The computer readable product of claim 11 wherein said transaction comprises a transfer or capitalization.
- 13. The computer readable product of claim 11 wherein said error notification issued by instruction (5) indicates that the asset met said set of criteria corresponding to one of said categories, but was not assigned a location for tax and/or insurance reporting purposes.
- 14. The computer readable product of claim 13 wherein said error notification issued by instruction (5) further indicates which of said at least one criterion caused said error.

- 15. The computer readable product of claim 13 wherein said error notification issued by instruction (6) indicates that said asset did not meet said criteria corresponding to any category.
- 16. The computer readable product of claim 8 wherein instruction (1) comprises detecting a call from said external software.
- 17. The computer readable product of claim 8 wherein instruction (1) comprises monitoring said external software to detect a transaction involving an asset.
- 18. The computer readable product of claim 8 wherein instruction (3) comprises accessing said data corresponding to said asset from at least one of a database and a transaction record received from said external software.
- 19. A computer system having at least one memory for storing data and at least one central processing unit for executing instructions, said memory storing at least one database containing data about a plurality of capitalized fixed assets, said central processing unit adapted to track the location of capitalized fixed assets for tax and/or insurance reporting purposes, said computer system comprising means for recording transactions relating to capitalized fixed assets, said system further comprising:

means for interfacing with external software to become aware of when a capitalized fixed asset is involved in a transaction;

means responsive to said detection for accessing data for said asset and running said data through a plurality of queries, each query designed to determine if said asset meets a set of criteria indicative of a category of how a location of said asset for tax and/or insurance reporting purposes may be determined;

means for running data corresponding to said asset through an audit customized to said corresponding category to determine a location of said asset for tax and/or insurance reporting purposes, if said asset meets said set of criteria corresponding to one of said queries;

means for assigning said determined location to said asset for tax and/or insurance reporting purposes and transmitting said determined location to said controller software, if a location is determined;

means for issuing an error notification, if a location is not determined; and means for issuing an error notification an asset type is not determined for said asset.

- 20. The computer system of claim 19 wherein each of said queries comprises at least one criterion to which said data for said asset must match.
- 21. The computer system of claim 20 wherein said data for said asset is run through said plurality of queries hierarchically, wherein, when said asset meets set of criteria of a particular query, said asset data is not run through any queries ordered lower in said hierarchy.

## **EVIDENCE APPENDIX**

1. The Arora provisional application, U.S. Provisional Patent Application No. 60/193,955 (attached). Applicant submitted this evidence as an attachment to its "Response to Final Office Action Dated May 21, 2007" that was filed electronically on July 27, 2007.

Appln. No. 10/086,244 Appeal Brief Page 24

## **RELATED PROCEEDINGS APPENDIX**

None.

Attorney Docket No.: 020512-000200US

#### **PROVISIONAL**

## PATENT APPLICATION

# COMPUTER-BASED OPTIMIZATION SYSTEM FOR FINANCIALS MANAGEMENT

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Attorney Docket No.: 020512-000200US

# COMPUTER-BASED OPTIMIZATION SYSTEM FOR FINANCIALS MANAGEMENT

#### BACKGROUND OF THE INVENTION

- [01] This invention relates in general to digital processing and more specifically to a system for analyzing allocation of factors relevant to business operations.
- [02] Maximizing performance and profitability is critical for businesses. However, this goal requires understanding complex interactions and tradeoffs that result from allocation of factors, such as cost and revenues, within a business. Businesses that have different geographic locations are subjected to different laws in different locations. Laws are often highly detailed and can implicate many characteristics of business operation such as transfer and handling of goods, tariffs, taxes, environmental effects, securities-related actions, management actions, compensation, and others. Even within a single legal jurisdiction, different laws and regulations may come into play to affect profitability and performance depending on the company's actions.
- [03] Other considerations, such as time-to-market, inventory, insurance, management motivation, bookkeeping, public reporting, etc., can intertwine with legal concerns in making a business decision. For example, a company with subsidiaries in California and Nevada can incur costs due to shared operations. The costs can be allocated, in varying degree, to either the California or Nevada subsidiary. In deciding how much cost to allocate a manager might realize tax advantages in California. However, another concern is that Nevada operational managers will have little incentive to conserve on costs if a large portion of the costs are being assigned to the California subsidiary.
- [04] This example suggests that some sort of a tradeoff analysis would be helpful in order to optimize business operations. However, such analysis is difficult due to the tax implications, alone. The incentive aspect requires measuring motivation and performance in such a way that the measurements can be compared or computed with tax benefit. Such measurements are difficult to obtain and use in a meaningful way with other financial data. Also, other factors may be involved that futher complicate analysis beyond any reasonable solution.
- [05] Traditionally, business financial decisions are made with piecemeal analysis.

  Statistics and reports might be used to provide some indication of an action's outcome.

However, such reports are backward-looking as they are based on data of past performance and can require approximation and guesswork to achieve an unreliable projection. Often the tools that are used by today's managers do not provide detailed and current calculations for tax implications, or other fast-changing and esoteric aspects of business. For large companies with a presence in many regions, analysis of even one factor can be confounding due to the many different tax laws.

#### SUMMARY OF THE INVENTION

[06] The present invention provides a system that analyzes, and optimizes, allocation of factors among different business entities. The analysis, or optimization, can be targeted to a specific business financials measurement, or metric. Many different types of factors can be considered regardless of their initial definition, description or form. For example, along with revenues, profit, inventory size, etc., human characteristics such as incentive and performance can be measured and optimized.

[07] A preferred embodiment of the invention concerns optimizing factor allocation to reduce overall taxes for a company with subsidiaries in regions with different tax laws. The system includes consideration of local, state, federal and international taxes, transfer pricing, tax credit limitations, inter-state allocations in unitary and non-unitary environments, carryovers, and others.

[08] The system preferably uses a versatile matching engine, described herein, to automate the analysis and optimization. The matching engine is capable of discrete and continuous attribute value weighting, and of performing substitution of attributes, or other variables. The engine may couple a hedonic approach with linear and non-linear programming methods to obtain solutions to the optimization problem. However, many types of automated approaches can be used, such as suitably programmed general computer systems, or other combinations of hardware and software.

[09] One embodiment of the invention provides a method for assigning a financial factor to one of a plurality of business entities. The method includes steps of identifying a factor to be assigned; indicating a metric to be optimized; defining one or more rules to be used in a matching process; using a computer system to perform a step of comparing degrees of optimization of the metric based on assignment of the factor to different ones of the plurality of business entities, wherein the one or more rules are used to derive the degrees of optimization; and using the result of the comparing step to assign the financial factor to the one of a plurality of business entities.

- [10] In a typical embodiment, there are at least two ways to assign financial factors. The first is to assign factors, such as costs, to business entities, such as subsidiaries directly in order to maximize some objective function. An example is the assignment of costs to subsidiaries directly to minimize the tax bill (or maximize the negative value of the tax bill). After this is done, the solution can be combined in a linear or non-linear fashion with the output of maximizing another objective function, e.g., the best provision of incentives, to get a final allocation of factors, in this case costs.
- [11] The second method allows the engine to compute weights and assign them to drivers that then allocate the financial factors. For example, wage bill, square footage, and sales of each subsidiary may be defined as drivers. The optimization engine described in the previous paragraph is then used to calculate optimal weights for each of the drivers so as to maximize an objective function. Now, weights are the output of the problem and they can be combined with weights obtained from the maximization of another objective function in a linear or non-linear way. The weights are then multiplied by the value of the drivers for each of the various subsidiaries to obtain actual allocations of the factors.
- [12] Another embodiment of the invention provides a method including using a computer system to provide projected tax liability when costs and revenue are allocated among a plurality of business entities, wherein the computer system executes a matching engine using weighting of attribute values.
- [13] Another embodiment of the invention provides a method including allocating cost or revenue among a plurality of business entities; using a computer system to provide projected tax liability based on the allocations; and using the computer system to provide incentive determination based on the allocations made in the step of allocating.
- [14] Another embodiment of the invention provides a method including allocating one of cost or revenue among a plurality of business entities; using a computer system to provide projected tax liability based on the allocations; and using the computer system to provide an audit risk projection based on the allocations made in the step of allocating.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[15] Fig. 1 is a diagram illustrating basic components of a system to analyze and optimize business operation.

#### DESCRIPTION OF THE SPECIFIC EMBODIMENTS

- [16] The invention is described in this application and in the documents accompanying this application named as follows:
- [17] (1) Liquid Engines Corporate Vision Brief, Draft October 15, 2001 (2 pages); and
- [18] (2) U.S. Patent Application Serial No. 09/823,955, filed March 30, 2001 entitled "ELECTRONIC MATCHING ENGINE FOR MATCHING DESIRED CHARACTERISTICS WITH ITEM ATTRIBUTES" (30 pages).
- [19] In Fig. 1, system 100 accepts factors such as cost 102 and revenue 104 as inputs. Note that other embodiments can accept other factors in addition to, or in place of, one or both of the cost and revenue factors. For example, sales regions, parts, or other resources necessary in creating a product or providing a service can also be "factors" allocated among subsidiaries or other business entities. In general, the system of the present invention is applicable to any tangible or intangible item, asset, service, agreement, instrument, resource or other characteristic of business operation that can be allocated among business entities. Factors can be of different types and can have sub-categories. For example, costs can be of fixed or variable types. Costs can be categorized as short-term, long-term, depreciable, etc. Costs can be categorized into utility (e.g., water, power), payroll, etc.
- [20] Allocation process 106 is symbolized by a rectangle. In a preferred embodiment, a user at a computer display can select and allocate factors. In this case, allocation 106 represents a manual operation that is typically performed by a suitable user interface such as graphical representation of factors on a computer screen, and allowing user selection and allocation with a user input device such as a mouse and pointer, trackball, touchscreen, etc. Factors can also be defined by a human user in relation to existing factors, values, metrics (discussed below), etc., or factors can be entered as new factors by suitably defining the factors. For example, where the matching engine described in the accompanying document is employed, factors can be defined as attribute/value pairs in mathematical, logical or relational equations, functions or algorithms.
- [21] Allocation process 106 can also be automated so that a computer system is used to, e.g., try different allocations to create a spectrum of predicted results. For example, visual graphs, maps, tables, etc., can be presented after many variations to a factor have been automatically performed. Such data can assist a human user to modify the factor, or other factors, to perform further analysis. As discussed below, automated allocation is also used when a human user directs the system to maximize, or optimize, specific metrics. Combinations of manual and automated allocation can be employed.

- [22] In a preferred embodiment, factors are allocated among business entities. In Fig.1, business entities are represented by circles within box 108. Business entities can be any division, subsidiary, partnership, company, affiliate, member that is related to a business operation. The business entities need not all be within a same legal framework. In other words, it is possible for the system to be used in an analysis where factors are allocated among separate companies. Business entities can also simply be groups of people, corporations, or other physically, conceptually or legally defined entities that are involved with a business operation being analyzed by the system of the present invention.
- [23] In a preferred embodiment, the user can define business entities to suit particular types of analysis and optimization. Default groups of entities can exist in the form of templates, or other pre-defined collections. Not all of the business entities need have a factor allocated for accurate analysis and optimization to be achieved.
- [24] The analysis process is indicated by box 110. In a preferred embodiment, a specialized "matching engine" is used to perform the analysis. The matching engine is described in detail in the accompanying document entitled "ELECTRONIC MATCHING ENGINE FOR MATCHING DESIRED CHARACTERISTICS WITH ITEM ATTRIBUTES". The matching engine is well-suited to the type of analysis at issue in the present system. The matching engine includes variable weighting of attribute values. The weighting can be discrete or continuous. The matching engine can also selectively perform substitution for attributes, or other variables. These properties of the matching engine allow disparate types of values (e.g., money values and human performance measurements) to be manipulated and compared in meaningful ways without creating an undue processing burden. Although the present invention is discussed primarily in connection with the matching engine, it is possible to achieve, or use, aspects of the invention with other computing approaches.
- [25] The analysis process uses rules, or operations, describing a business' operating characteristics. These rules, and other data and functional code, are obtained from model 112. Model 112 can provide, for example, rules for deriving tax implications of business operation. A preferred embodiment of the present invention is being developed by Liquid Engines, Inc., as computer software referred to as the "Financial Allocation System." This product uses a model that includes descriptions of business agreements between business entities. For example, the model can include a rule that states "Entity A receives 40% of the operating budget of Entity B." Such agreements, or contracts, can be selectively employed by the user when running analyses using a specific model so that accurate, comprehensive

performance.

functioning of the business operations can be simulated. The agreements are described in a document referred to as the "360 degree financial record." In a tax implication model, tax-related cash flows specified in a contracts model can be used to optimize prices at which internal assets are traded. The cash flows, in turn, affect the ways in which objectives and incentives can affect business units, as described below.

- [26] The product uses five central modules that help determine optimized tax planning with respect to business economics. These modules include (1) Cost Allocation, i.e., the allocation of direct costs incurred by a corporation and its subsidiaries to its various entities; (2) Transfer Pricing, i.e., the amount that one subsidiary charges another for goods and services that benefit another subsidiary; (3) Income Shifting, i.e., the transferring of income from one entity or subsidiary to another; (4) Capital Investment, i.e., the effect of capital and other fixed expenditures on taxes and other financial metrics in the firm; and, (5) Financing Instruments, i.e., the choice of various methods (short term or long term debt, equity etc.) on taxes and other considerations for the firm. The system can apply rules, processes and data in these modules to perform analysis and optimization and make recommendations at any business entity whether geographical, divisional by product line, etc. This results in corporate-wide visibility to all financial data impacting the performance of business units, allowing the restructuring of transactions in a manner that enhances organization
- [27] Note that many different models can be used to run different analysis. While the present invention is often discussed with respect to a tax analysis, any type of analysis is possible depending on the model, or models, used.
- [28] The result of analysis is the group of metrics at 120. These can be provided for a specific business entity, group of entities or for all entities. For example, tax liability metric 122 can be for the entire set of entities while audit risk 124 can be for a single, selected entity. Metrics are selected (automatically or manually) for use in subsequent allocation steps, as desired. Note that a subset of generated metrics can be used for another iteration of analysis. In Fig. 1, metrics of tax liability 122, audit risk 124 and incentive 126 are being used in subsequent analysis runs. Subsequent analysis can be automated by using conditional checks of the metric values, by using the metric values in calculations, etc. As an example, one analysis might be set up so factors are re-allocated and another analysis run as long as tax liability is over a given, threshold amount.
- [29] Audit risk metric 124 is a measure of the probability of a business entity (or group of entities) receiving a tax audit coupled with the expected cost associated with a particular

audit. The measure can be based on statistics obtained from records of actual audit frequency for different business practices or from subjective assessments by experts. The metric can include probability of reversal of an allocation and costs associated with an audit and reversal. The costs can include, but are not limited to, payback, penalties, interest and associated legal and accounting fees. The optimized solution can report audit risk and expected cost of a reversal in addition to calculating the optimal revenue and cost allocation strategy.

[30] Incentive metric 126 is a measure of a business entity manager's incentive to keep costs down. For example, if a certain type of cost is not incurred by business unit A then the manager of business unit A has a lower incentive to keep costs down. Similar metrics can be developed for measuring other human tendencies that are important to business operations (e.g., sales, use of resources, etc.).

[31] Although the invention has been described with respect to specific embodiments thereof, these embodiments are merely illustrative, not exclusive, of the invention. The scope of the invention is to be determined solely by the appended claims.

## WHAT IS CLAIMED IS:

1		1.	A method for assigning a financial factor to one of a plurality of	
2	business entities, the method comprising			
3		iden	tifying a factor to be assigned;	
4		indi	cating a metric to be optimized;	
5		defining one or more rules to be used in a matching process;		
6	using a computer system to perform a step of comparing degrees of			
7	optimization	imization of the metric based on assignment of the factor to different ones of the plurality		
8	of business e	business entities, wherein the one or more rules are used to derive the degrees of		
<b>79</b>	optimization; and			
10		usin	g the result of the comparing step to assign the financial factor to the one	
Ħ	of a plurality of business entities.			
N A		2.	The method of claim 1, wherein the factor includes cost.	
		3.	The method of claim 1, wherein the factor includes revenue.	
	allocation.	4.	The method of claim 1, wherein the factor includes product shipping	
1		5.	The method of claim 1, wherein the factor includes sales allocation.	
1		6.	The method of claim 1, wherein the business entities are located in	
2	different geo	graphic		
1		7.	The method of claim 1, wherein the business entities are located in	
2	regions with	differe	nt commercial laws.	
1		8.	The method of claim 1, wherein the metric includes growth.	
1		9.	The method of claim 1, wherein the metric includes profitability.	
1		10.	The method of claim 1, wherein the metric includes tax liability.	

1		11.	The method of claim 1, wherein the metric includes audit risk.
1 2	(ROA).	12.	The method of claim 1, wherein the metric includes return-on-assets
1		13.	The method of claim 1, wherein the metric includes human incentive.
1		14.	The method of claim 1, wherein the step of comparing degrees of
2	optimization	uses a	matching engine as described herein.
1		15.	A method for analyzing a business operation, the method comprising
2		using	a computer system to provide projected tax liability when costs and
3	revenue are a	allocate	d among a plurality of business entities, wherein the computer system
<b>3</b>	executes a m	atching	engine using weighting of attribute values.
		16.	The method of claim 15, wherein the computer system uses discrete
	weighting.	17.	The method of claim 15, wherein the computer system uses continuous
	substitution o	18. of varial	The method of claim 15, wherein the computer system uses
1		19.	A method for analyzing a business operation, the method comprising
2		alloca	ating one of cost or revenue among a plurality of business entities;
3		using	a computer system to provide projected tax liability based on the
4	allocations m	ade in t	he step of allocating; and
5 6	allocations m		the computer system to provide incentive determination based on the he step of allocating.
1		20.	A method for analyzing a business operation, the method comprising
2		alloca	ting one of cost or revenue among a plurality of business entities:

- 3 using a computer system to provide projected tax liability based on the
- 4 allocations made in the step of allocating;
- 5 using the computer system to provide an audit risk projection based on the
- 6 allocations made in the step of allocating.

Attorney Docket No.: 020512-000200US

## COMPUTER-BASED OPTIMIZATION SYSTEM FOR FINANCIALS MANAGEMENT

#### ABSTRACT OF THE DISCLOSURE

A system for analyzing and optimizing allocation of factors among different business entities. The analysis, or optimization, can be targeted to a specific business financials measurement, or metric. Many different types of factors can be considered regardless of their initial definition, description or form. For example, along with revenues, profit, inventory size, etc., human characteristics such as incentive and performance can be measured and optimized. A preferred embodiment of the invention concerns analyzing factor allocation to reduce overall taxes for a company with subsidiaries in regions with different tax laws. The system includes consideration of local, state, federal and international taxes, transfer pricing, tax credit limitations, inter-state allocations unitary and non-unitary environments, carry-overs, and others. The system preferably uses a versatile matching engine, described herein, to automate the analysis and optimization. The matching engine is capable of discrete and continuous attribute value weighting, and of performing substitution of attributes, or other variables.

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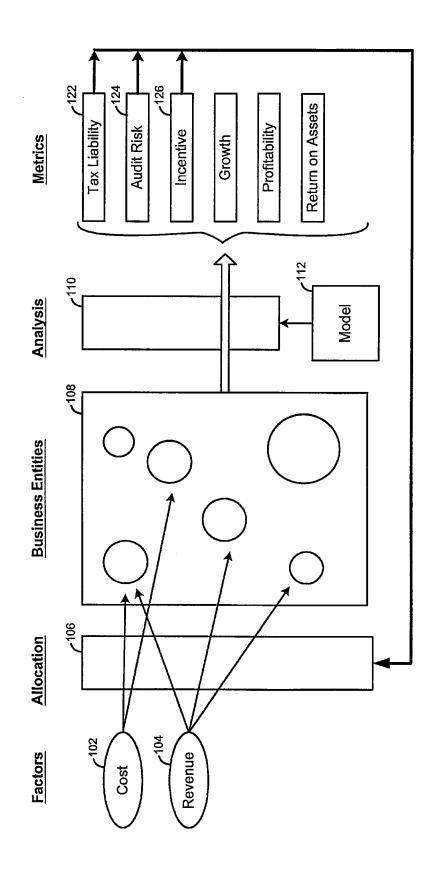


Fig. 1

### <u>Liquid Engines</u> <u>Corporate Vision Brief</u>

Draft October 15, 2001

#### Mission

Liquid Engines, Inc. (LEI) is delivering enterprise financial visibility and optimization software that increases cash flows by synchronizing financial metrics with management incentives.

#### **Business Economics Misalignment**

Financial allocation has become an issue of strategic importance to global companies, as it directly impacts corporate and business-unit incentives and financial metrics like growth, profitability, effective tax rates and return-on-assets (ROA). Increasingly, global companies have recognized the need for more company-wide visibility on its forecasted cash flows. These flows are controlled by revenue, expense and capital decisions which are shared across geographic boundaries and need to be allocated across business units with respect to tax laws and GAAP methods.

Currently, the "typical" visibility and control of financial allocation for a global enterprise is highly problematic in a variety of ways:

- > Financial personnel use individual, "homegrown" allocation models without corporate uniformity, resulting in significant time spent "negotiating" with business unit managers.
- Financial plans are done in "silos" by business unit managers, creating unintentional tax burdens and audit risks not caught early enough by the tax groups.
- > Free cash flow is limited due to handcuffing corporate treasurers with inconsistent cross-geography tax schemes.
- Management incentives are misaligned without early tax burden visibility, resulting in 'hidden' enterprise churn and lost tax efficiencies.

#### The LEI Corporate-Wide Solution

The LEI Financial Allocation System provides CFOs the essential set of business processes and workflows for financial planning directors, business analysts, treasury managers, tax planner and divisional finance and business unit executive to have metrics and incentive visibility across the entire enterprise. The LEI system is an *economic-based* financial solution that acts on existing *operationally based* financial datastores, providing metrics optimization, variance alerts, causation reports and dispute resolution to continuously improve corporate-wide net cash flows.

The core document of the system is the 360 degree financial record, which contains both explicit and implicit agreements of various parties to make decisions and to receive cash flows in differing circumstances. Specifically tax-related cash flows specified in these contracts can optimize prices at which internal assets are traded. These cash flows affect the ways in which objectives and incentives are organized by business units.

The LEI System is comprised of 5 central modules that help determine optimized tax planning with respect to business economics. These modules include: Cost allocation, Transfer pricing, Income shifting, Capital investment and Financing instruments. The system performs optimization, analysis and recommendation at any corporate node, whether geographical, divisional or by product line. The result is corporate-wide visibility to all financial data impacting the performance of business units, allowing the restructuring of transactions in a manner that enhances organization performance.

1 AHAChment 1

Liquid Engines Confidential

12/13/2001

#### Multi-Dimensional Optimization Technology

The LEI optimization technology is a first of its kind. Most optimization techniques are limited to solving 2-dimensional problems, and they have been applied in financial risk management and supply chain solutions with some success. None of these techniques can resolve the multi-attribute, multi-asset, multi-agent requirements for efficient business economic and tax decision making. There are 4 patents pending on the technology and business processes implemented in the LEI System.

#### The LEI Value Proposition

The Company is focused on delivering a self-funding ROI for its enterprise financial customers. There are two elements that comprise this value:

- > Increasing Cash Flow. Utilizing the LEI system across all business units will provide minimally a 1% pre-tax relief on its operating income. This will mean \$10s of millions of dollars annually to the bottom line, directly improving net cash flows.
- > Global visibility and control. Centralizing the control and structure for enterprise allocations and incentives provides early visibility and cause/effect analysis, saving millions of dollars annually in business processes.

#### Why Now

Whether in up or down business cycles, a strong mandate exists for increasing cash flows and accountability in global enterprises. *Operationally based* financial systems, which gained popularity in the early 1990s, provided systematic ways of capturing and reporting on past data and metrics. CFOs are now clamoring for *economic-based* systems, providing analysis and optimization of forward financial outcomes. Technologically, web infrastructures and EAI platforms provide the ability to put these systems into the hands of all business functions with a non-disruptive integration process. Liquid Engines is capitalizing on these major business and technology trends, leveraging its proprietary assets to create the first strategic enterprise cash flow management solution.

#### Background

Liquid Engines is an enterprise software company delivering a corporate-wide Financial Allocation System for aligning inancial metrics with incentive compensation. The company began operations in the summer of 2000 and is located in Sunnyvale, CA. It was founded by Ms. Arti Arora and Dr. Ed Lazear, who co-developed core properties and algorithms that efficiently make complex business decisions using a multi-dimensional optimization technology. LEI's founders are at the forefront of a new economic practice, Enterprise Cash Flow Management.

LEI's customer is the global enterprise CFO. This executive has ultimate responsibility for all financial decisions and outcomes in a corporation. The LEI system gives the CFO, her/his employees and divisional managers the first solution to identify and optimize financial decisions that take into account both incentive and tax considerations. Inherent in this solution is a new managerial approach, one that focuses managers centrally on increasing and rewarding business accountability and cash flow on a continuous basis.

The company has assembled an employee and advisory team of world-renowned economists, tax policymakers and legal experts, financial systems knowledge-workers, and successful software entrepreneurs. In addition, the company has garnered strong financing from elite venture capitalists and will deliver it initial solution to the market in early 2002.